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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,451	08/19/2003	Eric O. Zuber	02CR360/KE	4397
26383 7590 06/04/2007 ROCKWELL COLLINS, INC. INTELLECTUAL PROPERTY DEPARTMENT 400 COLLINS ROAD NE M/S 124-323 CEDAR RAPIDS, IA 52498			EXAMINER GEE, JASON KAI YIN	
			ART UNIT 2134	PAPER NUMBER
			MAIL DATE 06/04/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/643,451

Applicant(s)

ZUBER ET AL.

Examiner

Jason K. Gee

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2134

***DETAILED ACTION***

1. This action is response to communication: response to restriction filed on 04/02/2007.
2. Claims 1-6 and 17-20 have been elected, and 7-16 have been withdrawn.
3. Claims 1-6 and 17-20 are currently pending in this application. Claims 1 and 17 are independent claims.
4. No IDS was received for this application.

***Response to Arguments***

Applicant's arguments filed on 04/02/2007 have been fully considered but they are not persuasive.

The appellant has elected the claims that were restricted in the previous office action, but has elected with traverse. However, no specific arguments were made to the traversal, and the reply shall be treated as an election without traverse.

MPEP 818.03(b) R-3 recites "the Election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2134

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-6 and 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1-6 and 17-20, the term "input/output" is recited throughout the claims. It is unclear what the metes and the bounds of the claim pertain to, as the '/' could either mean "and" or "or."

As per claim 18, the claim recites wherein the processors comprise red processing devices. It is unclear what 'red' refers to, as it is not detailed in the specification.

As per claim 20, the claim recites wherein the processors comprise black processing devices. It is unclear what 'black' refers to, as it is not detailed in the specification.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2134

8. Claims 1-3, 17, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Jakoubek US Patent Application Publication 2004/0052372 (hereinafter Jakoubek).

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per claim 1, Jakoubek teaches a multi-channel radio operating with multiple security levels, comprising: more than one input/output, each input/output corresponding to a security level (paragraph 20, 23, Figure 1); a first common bus coupled to the more than one input/output (Figure 1; also, the use of busses are inherent to connect input/output devices; paragraph 29); a first set of more than one processor coupled to the common bus, each of the first set of processors corresponding to a security level (Figure 1; paragraph 23); a second set of more than one processors coupled to the first set of processors (Figure 1); and more than one transceiver (Figure 1), each transceiver being coupled to at least one of the processors of the first set of processors (Figure 1).

Art Unit: 2134

As per claim 2, Jakoubek teaches a second common bus coupled to the first set of processors and the second set of processors (paragraphs 25 and 26).

As per claim 3, Jakoubek teaches wherein one of the first processors of the first set of processors encodes information received from one of the inputs/outputs (paragraphs 23 and 24).

Claim 17 is rejected using the same basis of arguments used to reject claim 1 above.

As per claim 18, Jakoubek teaches wherein the second set of processors comprise red processing devices (Figure 1).

As per claim 20, Jakoubek teaches wherein the first set of processors comprises black processing devices.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, 17, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell US Patent No. 6,944,475 (hereinafter Campbell), and in view of Watanabe et al. US Patent No. 5,991,642 (hereinafter Watanabe).

Art Unit: 2134

As per claim 1, Campbell teaches a multi-channel radio operating with multiple security levels, comprising: more than one input/output (Figure 1; col. 4 lines 45-55; col. 9 lines 15-34; Figure 7); a first common bus coupled to the more than one input/output (Figure 1 and Figure 2; col. 4 lines 45-55; col. 4 line 62-col. 5 line 11; col. 6 lines 29-33; col. 9 line 15-34; Figure 7 ); a first processor coupled to the common bus (Figure 1, Figure 4 item 428, Figure 7; col. 9 lines 15-34; ); a second processor coupled to the first set of processor (Figure 4 item 440; col. 7 line 65 to col. 8 line 5); more than one transceiver (Figure 1); each transceiver being coupled to at least one of the processors of the first processors (Figure 1).

Although Campbell teaches the use of two set of processors, the sets of processors each only include one processor. However, multiple processor sets connected by a bus in a multi-channel communication system is taught throughout Watanabe, such as in col. 9 lines 30-45.

At the time of the invention, it would have been obvious to combine the teachings of Campbell and Watanabe. One of ordinary skill in the art would have been motivated to perform such an addition as multiple processors allow for more computing power. Also, by having multiple processors, each processor may be given a dedicated task, so as to keep organization in the system and allow fast processing. Campbell and Watanabe are analogous art, as they are both directed to secure communication via radios comprising multiple channels.

Art Unit: 2134

As per claim 2, Campbell teaches a second common bus coupled to the first processor and the second process (Figure 4, wherein the processors are connected

As per claim 3, Campbell teaches wherein the first processor encodes information received from one of the input/output (col. 7 lines 1-10).

Claim 17 is rejected using the same basis of arguments used to reject claim 1 above.

As per claim 18, as best understood by the Examiner, Campbell teaches wherein the second set of processors comprise red processor devices (col. 9 lines 35-50; col. 10 lines 21-30, and col. 11 lines 25-43).

As per claim 20, as best understood by the Examiner, Campbell teaches wherein the first set of processors comprise black processing devices (col. 9 lines 35-50; col. 10 lines 21-30, and col. 11 lines 25-43).

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell and Watanabe as applied above, and further in view of Harrison et al. US Patent No. 6,101,255 (hereinafter Harrison).

As per claim 4, the Campbell combination does not teach explicitly wherein the second common bus directs the encoded information so that it is received by the intended processor of the second set of processors and not received or understood by



Art Unit: 2134

other of the processors of the second set of processors. However, this is taught by Harrison in col. 5 line 55 to col. 6 line 17.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the Campbell combination with Harrison. One of ordinary skill in the art would have been motivated to perform such an addition to minimize latency throughout the system (col. 6 lines 8-10 of Harrison). Also, Harrison is analogous art, as it is directed toward multiple channel radio communications.

12. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell, Watanabe, and Harrison as applied above, and further in view of Fletcher US SIR Reg. No. H1,836 (hereinafter Fletcher).

As per claim 5, the Campbell, Watanabe, and Harrison all teach switching devices and packets, such as in Watanabe abstract and Campbell Figure 4, but does not explicitly teach wherein the first common bus is an Ethernet packet switching device. However, using Ethernet devices are well known in the art, as pertaining to multi-channel communication radios, and are taught throughout Fletcher, such as in col. 16 lines 20-30.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the Campbell combination with Fletcher. Fletcher teaches that a switching modules may include many components, such as busses and Ethernet interfaces. As Ethernet is well known in the art and used commonly to those in the field, it would have been obvious to make a switch compatible for Ethernet packets.

Art Unit: 2134

Providing an Ethernet switch would make the invention more practical and adaptable to use as Ethernet is well known and used frequently.

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell, Watanabe, and Harrison as applied above, and further in view of Mahany US Patent No. 5,960,344 (hereinafter Mahany).

As per claim 6, the Campbell combination teaches the use of a bus, but does not explicitly recite PCI busses. However, PCI busses are well known in the art, and may be implemented in multi-channel radios, such as taught by Mahany in col. 9 lines 10-21.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the Campbell combination with Mahany. PCI busses are well known in the art and used commonly, and it would have been obvious to incorporate PCI busses to make the systems compatible with the systems on the market.

14. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell and Watanabe as applied above, and further in view of Mahany US Patent No. 5,960,344 (hereinafter Mahany).

Claim 19 is rejected using the same basis of arguments used to reject claim 6 above.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the Campbell combination with Mahany. PCI

Art Unit: 2134

busses are well known in the art and used commonly, and it would have been obvious to incorporate PCI busses to make the systems compatible with the systems on the market.

***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason K. Gee whose telephone number is (571) 272-6431. The examiner can normally be reached on M-F, 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Gee  
Patent Examiner  
Technology Center 2134  
05/24/2007

  
KAMBIZ ZAND  
SUPERVISORY PATENT EXAMINER